

## CLAIMS

### We claim:

1. The invention relates to the discovery of the presence of endogenous proteins; nerve growth factor (NGF), myoglobin, Insulin, adenosine deaminase (ADA), including immunoglobulin E (IgE) in samples of human saliva.
2. This invention relates to the introduction of use of saliva as a non-invasive source for detection and assay of endogenously present proteins; NGF, myoglobin, Insulin, ADA, including IgE.
3. The invention discovered that people having high levels of IgE show higher levels in comparison to controls, of NGF, myoglobin, insulin and in asthma patients high level of ADA, disrupting the homeostasis for these proteins.
4. Composition of synthetic LT-10 is advocated as a treatment for IgE implicated disorders. Synthetic LT-10 consists of ten amino acids: Leu Lys Ala Met Asp Pro Thr Pro Pro Leu.
5. Composition of synthetic LT-10 as a treatment for having high level of IgE, causes decrease in level of IgE. Decrease in IgE level brings the homeostasis of other proteins to normal state which improves the symptoms in the afflicted people for asthma, depression, diabetes and various types of autoimmune diseases, such as erythematosus (SLE); Rheumatoid arthritis Sjogren's syndrome; Reiter's syndrome; Diabetes mellitus (insulin-dependent); Graves' disease; Addison's disease Hodgkin's disease etc.
6. People having elevated level of IgE also show high level of NGF may be prone to the symptoms of neuropathy. Likewise high level of myoglobin may cause heart problems. Elevated level of insulin shows pancreases is affected. LT-10 treatment decreases the level of IgE which brings the homeostasis for NGF, myoglobin, insulin, ADA and may be other proteins and cytokines to normal status.

7. A method for assaying a human endogenous protein of interest, said method comprising obtaining a saliva sample from a human, and performing an ELISA assay on such saliva sample employing an anti-serum which is specific for the protein of interest.

8. A method as in claim 7 wherein the analysis is performed for at least one protein selected from the group consisting of IgE, NGF, Insulin, Myoglobin and ADA and the ELISA is performed with anti-IgE, anti-NGF, anti-Insulin, anti-Myoglobin, and anti-ADA.

9. A method for reducing serum proteins selected from the group consisting of IgE, NGF, Insulin, Myoglobin and ADA in a human, comprising administering to said human an effective amount of a peptide containing at least the first four amino acids from the N-terminal of the sequence  
Leu Lys Ala Met Asp Pro Thr Pro Pro Leu Trp Ile Lys Thr Glu  
to reduce at least one serum level of IgE, NGF, insulin, myoglobin and ADA in said human.

10. A method as in claim 9 wherein the peptide contains the sequence of at the least first four amino acids beginning at its N-terminal and has no more than 20 amino acids total.

11. A method as in claim 10 wherein the peptide is orally administered and serum IgE level is reduced.

12. A method as in claim 10 wherein the range of from about 0.02 to about 200 milligrams of the peptide are orally administered on a daily basis.

13. A method as in claim 10 wherein in the range of from about 0.2 to about 20 milligrams of the peptide are orally administered on a daily basis and the peptide is selected from the group consisting of

Leu Lys Ala Met Asp Pro Thr Pro Pro Leu Trp Ile,  
Leu Lys Ala Met Asp Pro Thr Pro Pro Leu Trp,

Leu Lys Ala Met Asp Pro Thr Pro Pro Leu,  
Leu Lys Ala Met Asp Pro Thr Pro Pro, and  
Leu Lys Ala Met Asp Pro Thr Pro.

14. A method as in claim 10 wherein said human has an elevated serum IgE level.

15. A method as in claim 14 wherein said human further has an elevated NGF, Insulin, Myoglobin and/or ADA serum level.

16. A method as in claim 14 further comprising assaying a saliva IgE level in said human.

17. A method as in claim 14 comprising  
diagnosing a condition selected from the group consisting of  
Asthma, Diabetes, Depression and Autoimmune Disease  
in said human to which said peptide is to be administered.

18. A method as in claim 17 wherein the autoimmune disease is selected from the group consisting of erythematosus (SLE), Rheumatoid arthritis, Sjogren's syndrome, Reiter's syndrome, Graves' disease, Addison's disease, and Hodgkin's disease.